

United States Patent

Sinclair

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[54] **MATRIX SWITCH WITH IMPROVED
FLEXIBLE INSULATIVE SPACER
ARRANGEMENT**

- [72] Inventor: William Y. Sinclair, Frenchtown, N.J.
[73] Assignee: Thomas & Betts Corporation, Elizabeth, N.J.
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200/159 B
[51] Int. Cl. H01h 9/26, H01h 13/26
[58] Field of Search. 200/5 R, 5 A, 86 A, 86.5, 159 B

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Primary Examiner—J. R. Scott
Attorney—David Teschner

[57] **ABSTRACT**

A matrix switch comprises an orthogonal arrangement of two sets of parallel conductors spaced from one another by a plurality of resilient elements. Preferably, the switch is made by securing together two one-sided flat conductor cables, each of which comprises a plurality of alternating, parallel conductors and elastomeric elements, with the heights of said elastomeric elements being greater than the heights of said conductors. Each cross-over point of the spaced conductors forms a switch point which is activated upon depression of the upper conductor into contact with the lower conductor. The orthogonally disposed flat conductor cables are held in a suitable housing including printed circuit board pads to which the conductors are connected, thereby facilitating simultaneous connection of the conductors to conventional multi-pin printed circuit board connectors for connection to the electronics used in conjunction with the matrix switch.

12 Claims, 9 Drawing Figures

